FIG.1

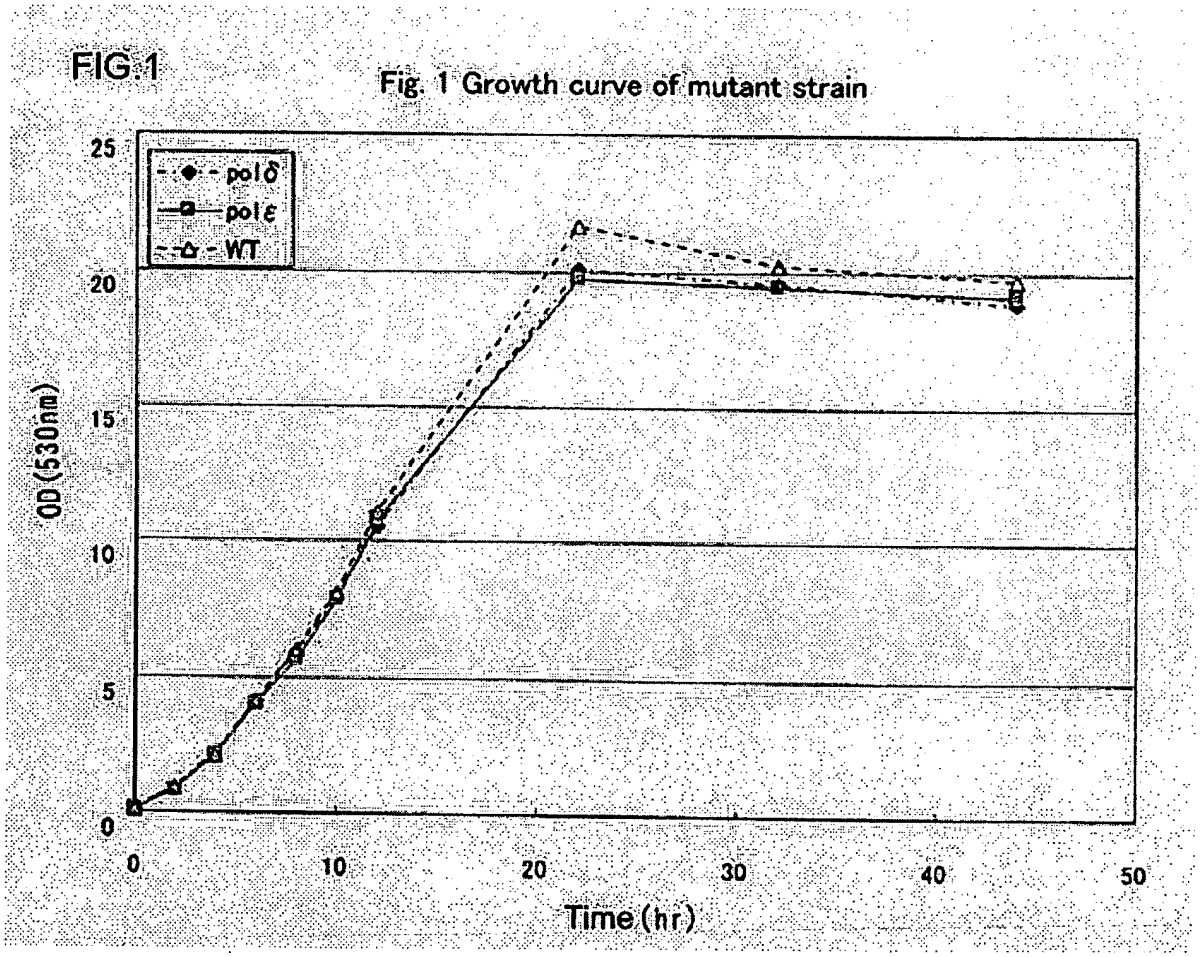


Fig. 1 Growth curve of mutant strain
polδ
polε
WT
OD (530nm)
Time (hr)
0
5
10
15
20
25
0
10
20
30
40
50

FIG.2

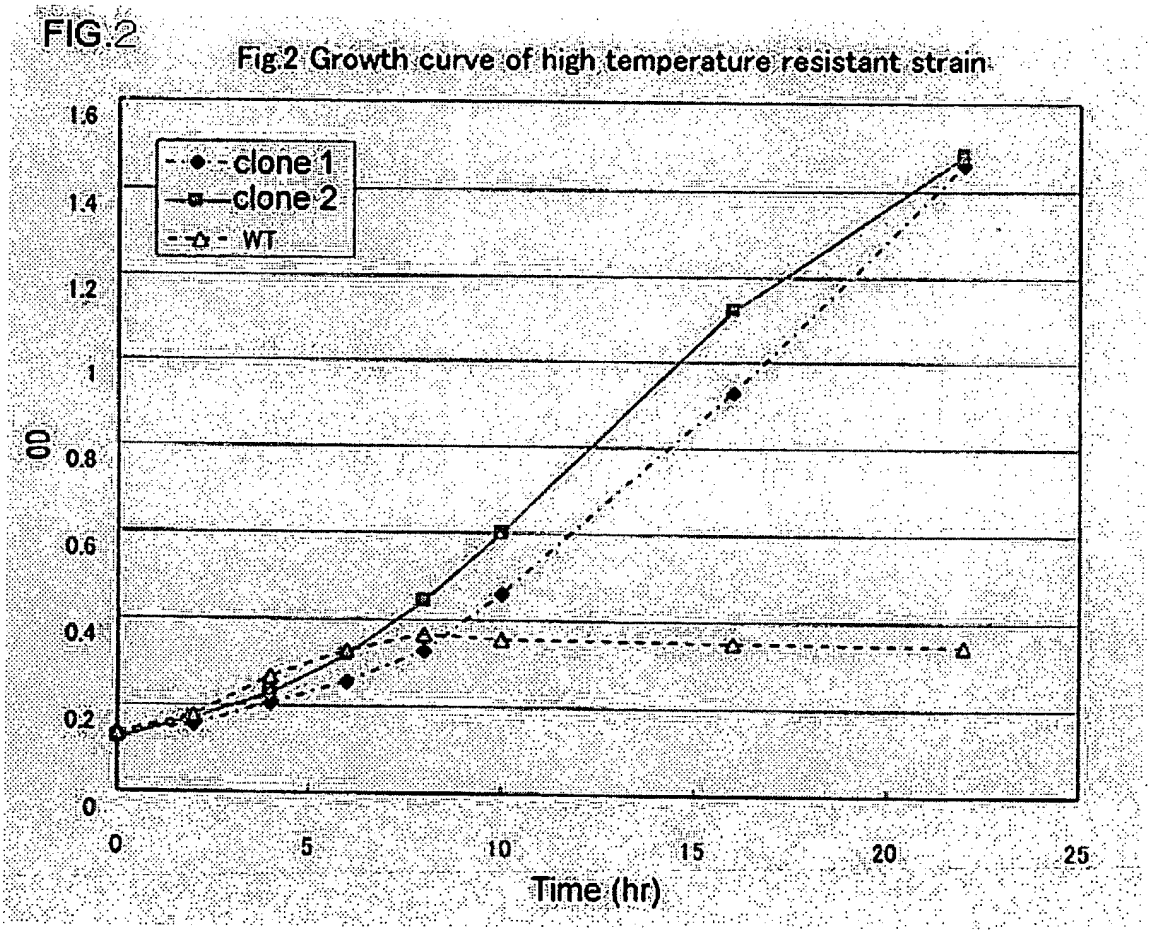


Fig.2 Growth curve of high temperature resistant strain
clone 1
clone 2
WT
OD
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
5
10
15
20
25
Time (hr)

FIG.3A

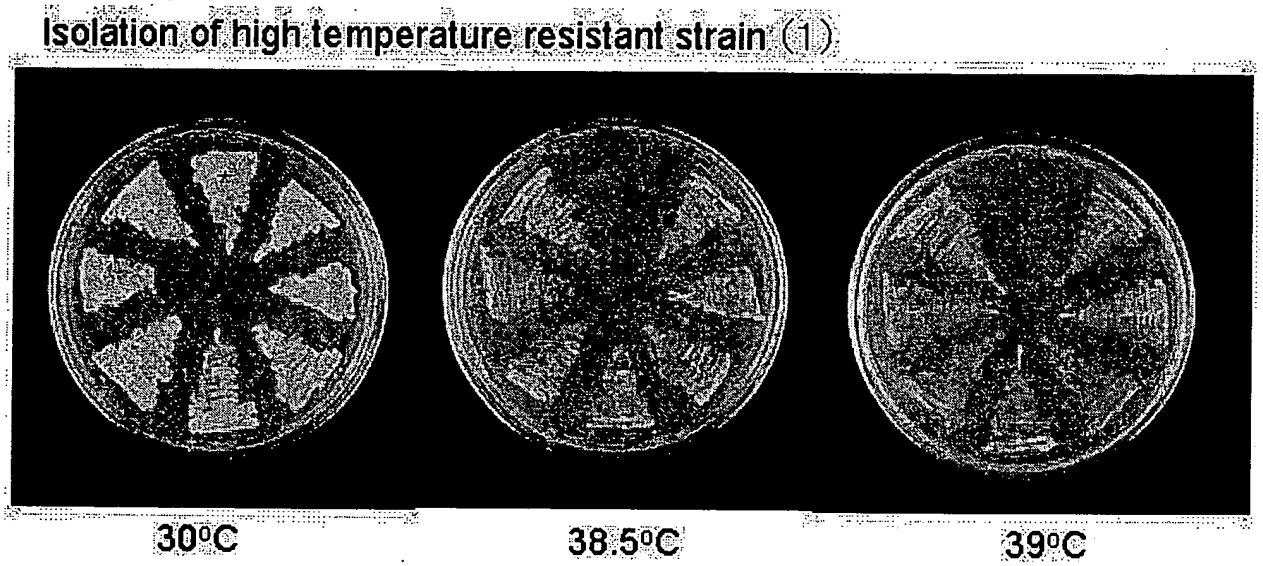

Isolation of high temperature resistant strain (1)
30°C
38.5°C
39°C

FIG.3B

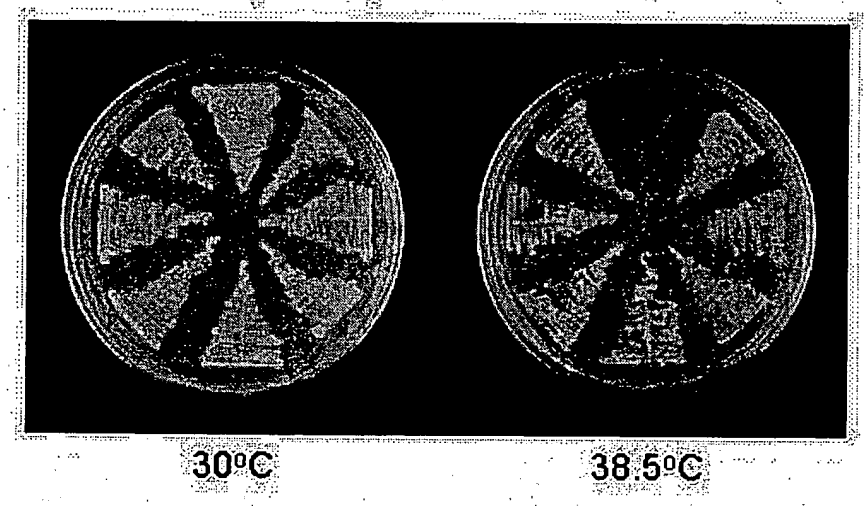


FIG.4A

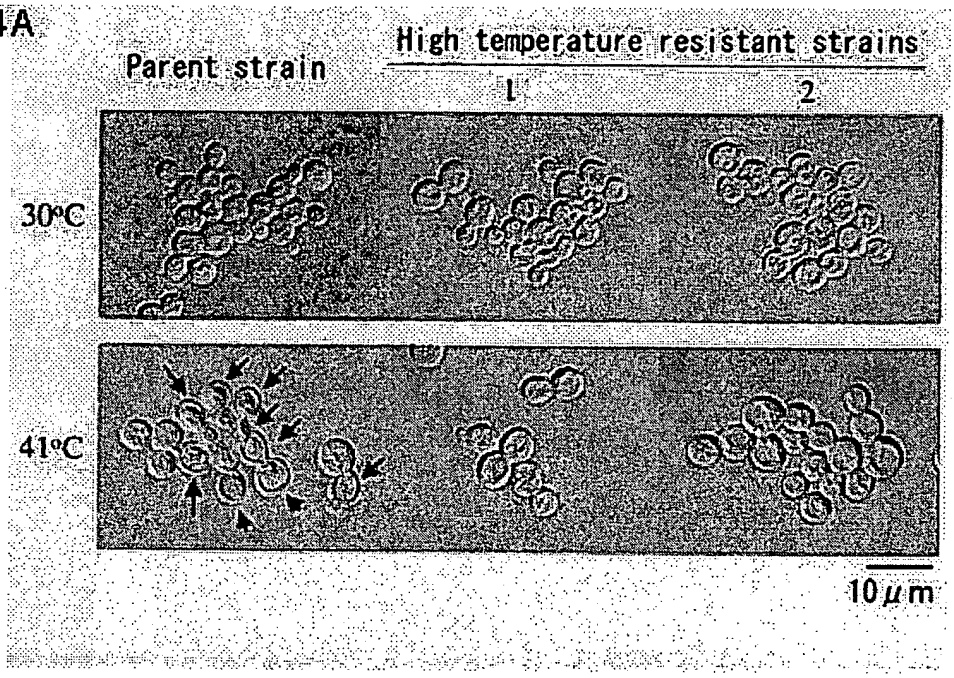
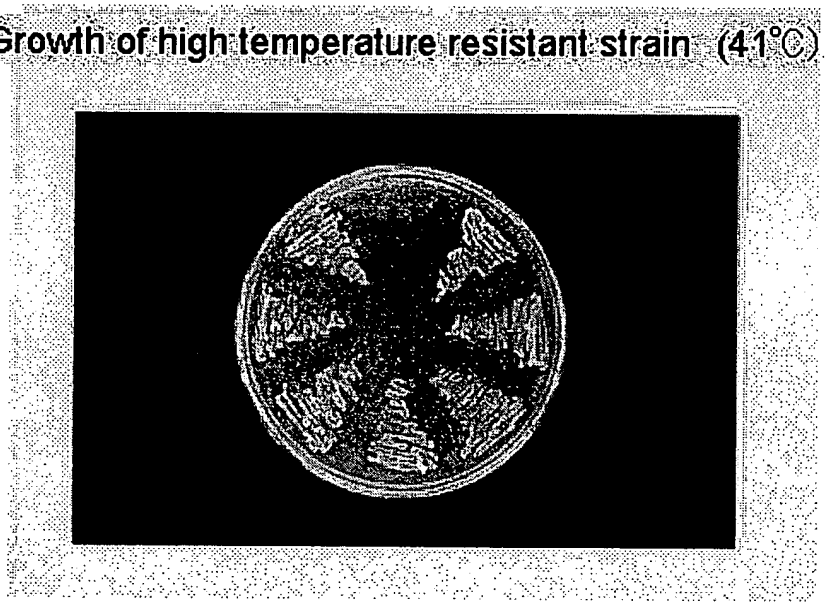

Parent strain
High temperature resistant strains
1
2
30°C
41°C
10 μm

FIG.4B



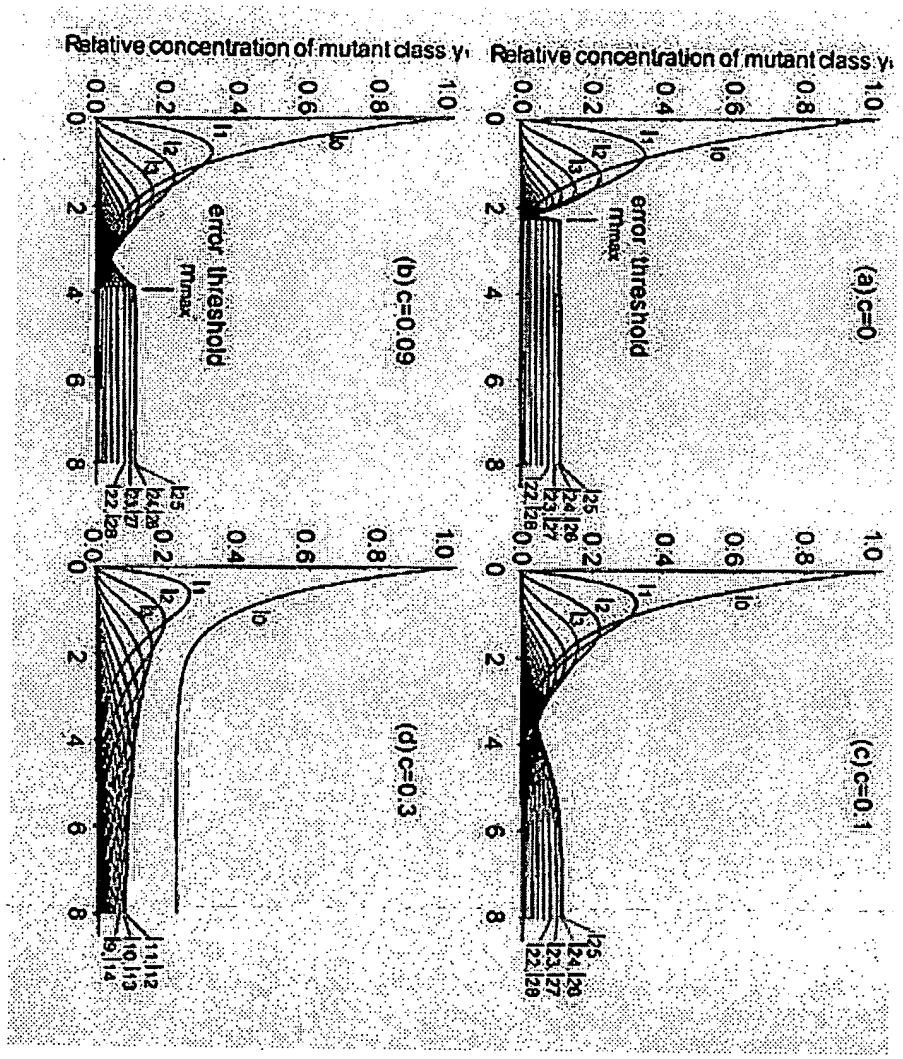

Relative concentration of mutant class y
error threshold
nmax
(a) c=0
(b) c=0.09
(c) c=0.1
(d) c=0.3
0.0
0.2
0.4
0.6
0.8
1.0
0
2
4
6
8

FIG.5

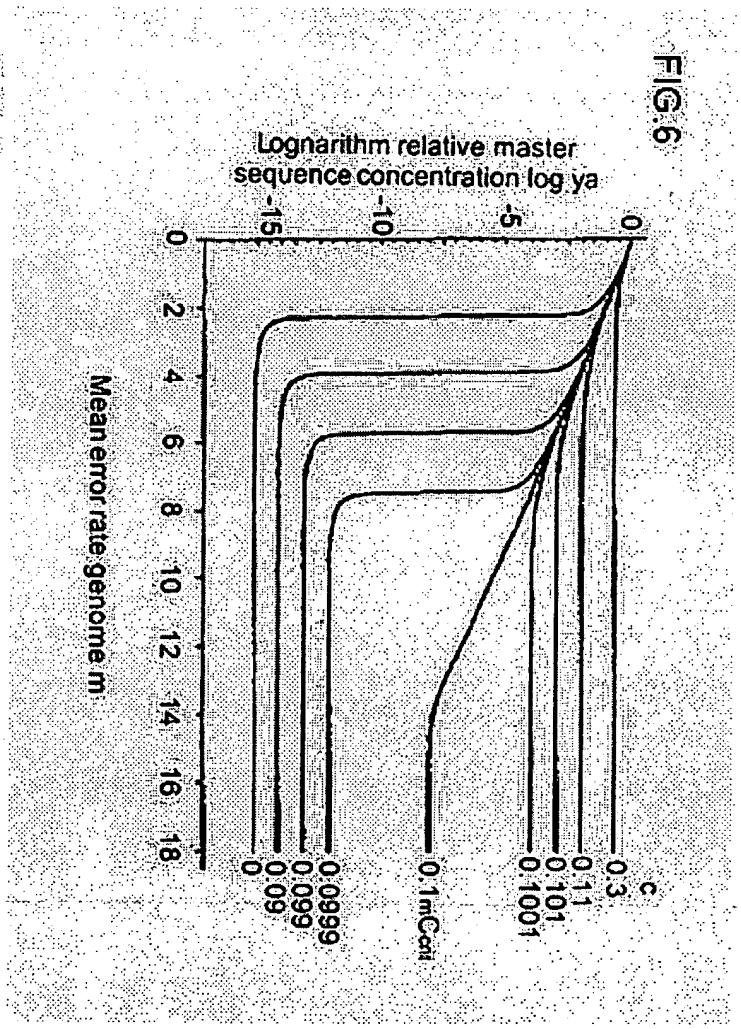

Lognarithm relative master sequence concentration log ya
-15
-10
-5
0
Mean error rate genome m
0
2
4
6
8
10
12
14
16
18
c
0.3
0.11
0.101
0.1001
0.1mCcri
0.0999
0.099
0.09
0

FIG.6

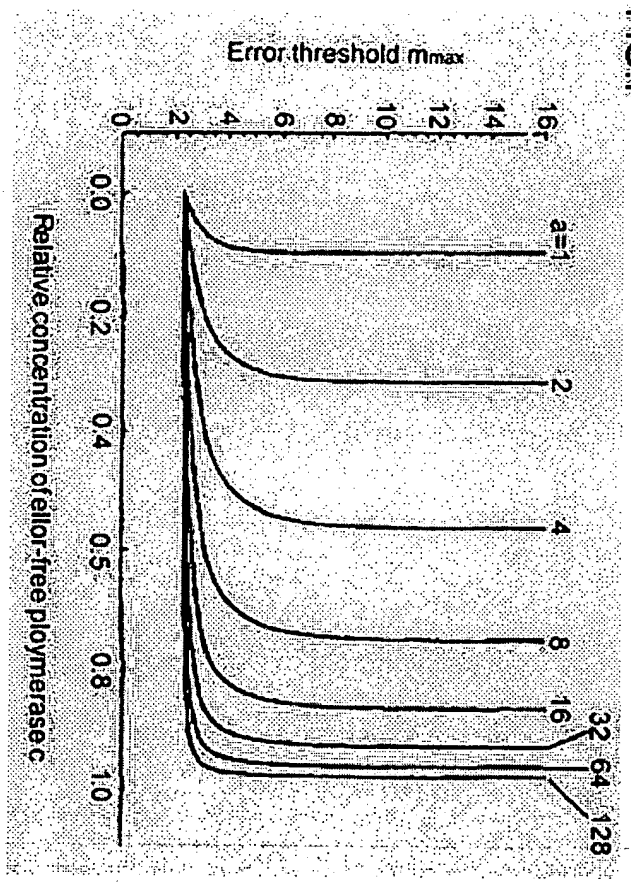
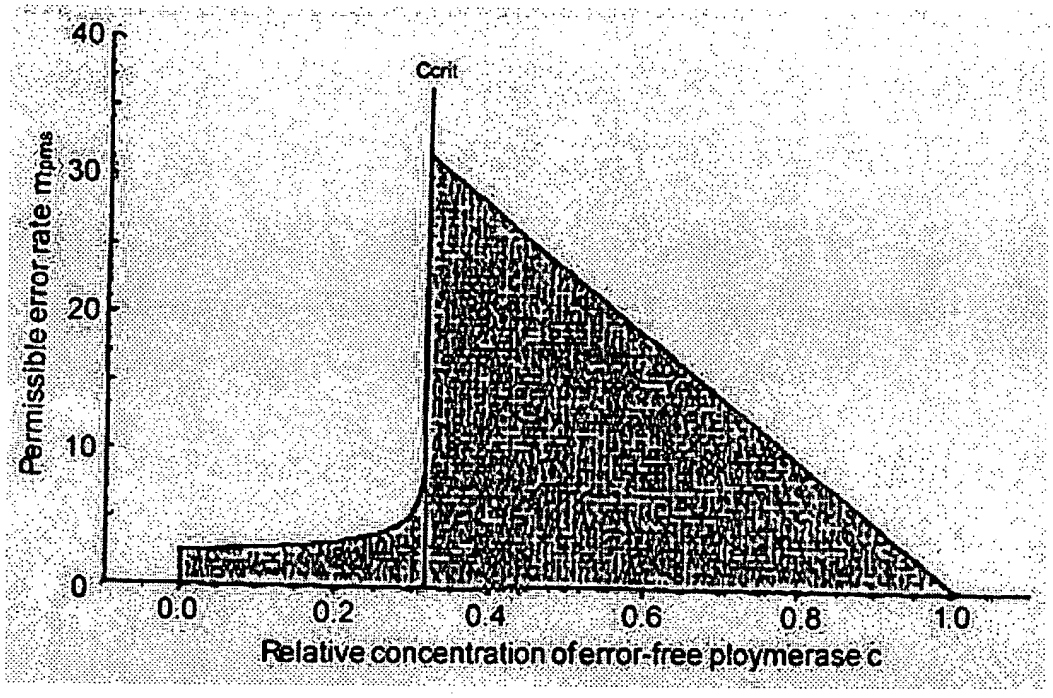

Error threshold mmax
0
2
4
6
8
10
12
14
16
Relative concentration of ellor-free ploymerase c
0.0
0.2
0.4
0.5
0.8
1.0
a=1
2
4
8
16
32
64
128

FIG.7

FIG 8


40
30
20
10
0
Ccrit
Permissible error rate m_{pms}
0.0
0.2
0.4
0.6
0.8
1.0
Relative concentration of error-free ploymerase c